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Historical Implications of the Vai Consonant System*

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1. Introduction

Vai is spoken by probably fewer than 40,000 people, largely along the northwestern coast of Liberia, but extending a little into Sierra Leone. It is a Northern Mande language, but is not geographically adjacent to any of its closest relatives. Vai diverged from Kono, in what is today central eastern Sierra Leone, probably no more than 500 years ago, when the ancestors of the present Vai people pushed their way to the coast with the purpose of stabilizing the salt trade. The ancestor of Vai and Kono, in turn, diverged from Mandekan (Maninka, Bambara, etc.) perhaps 1700 years ago. Among the Southwestern Mande languages, which diverged from Northern Mande roughly 2000 years ago, Mende at present occupies most of the area between Vai and Kono; Vai has also had some contact with Kpelle. The other immediate neighbor of Vai is Gola, a Mel or Southern West Atlantic language. My informant is bilingual in Vai and Gola, and speaks some Mende as well.

2. The consonant system and its historical implications

The consonantal phonology of Vai provides unusual and fascinating evidence for the history of the language. Even in a descriptive treatment of the phonology, which I completed in Liberia and which appears to need only minor revisions, it seemed worthwhile to treat stem-initial consonants by groups which undoubtedly reflect historical developments in the language.

The stem-initial consonants of Vai may be divided into two major categories. The first comprises only those consonants which reflect the proto-Northern-Mande (PNM) consonantal system. This does not mean, of course, that these modern Vai consonants are identical with their PNM ancestors; on the contrary, it is clear that some phonologic changes from PNM to modern Vai have taken place, most conspicuously a merger of PNM *k and *g as modern Vai /k/ (a development shared by Mandekan, but not by some other languages that diverged earlier from the PNM stock). Nor does this mean, of course, that every stem beginning with one of these consonants is inherited from PNM; on the contrary, it is possible to identify a number of words of foreign origin which have initial consonants in this group. What is significant about this category is, rather, that all inherited PNM stems which have been retained in Vai--along with an undetermined and probably undeterminable number of innovated stems--begin with one of these consonants.

They are thus in a true sense the "inherited consonants" of Vai. There are twelve such consonants. In the following chart of them, the numeral after each symbol indicates the number of words, out of a vocabulary of about 1500 items, beginning with that consonant. The figures include some duplication, since some derived forms were counted along with the bases from which they are derived.

	t: 137		k: 268	kp: 101
b: 143		j: 85		
f: 86	s: 138			
w: 62	l: 121			
m: 69	n: 39	ny: 25		

The phonetic values of a few of these require special comment. /kp/ is a doubly articulated (velar and bilabial) stop, with some oral suction preceding the simultaneous release. /b/ is implosive, /ɓ/. /j/ may best be described as a voiced palatal stop; there is very little affrication in its release. /l/ is, for many speakers, usually an implosive stop, [ɗ], which could as validly occupy the blank in the voiced alveolar stop position in the chart above; for many other speakers, however, it is commonly a lateral resonant as the symbol suggests. Before one of the vowels /i, e, ɛ/, /w/ is rare (and undoubtedly not "inherited"), and is usually a close bilabial resonant with no protrusion of the lips, [ʊ]; this is especially noticeable in phrase-medial position after a vowel ending the preceding word. A phonetic [w] may be heard in forms transcribable as [wíì*] 'boil', [wéé] (a sentence-final particle), and [wɛ̀ɛ] 'today'; these are, however, variants of [wúlì*] or [wúì*], [wóé], and [wɔ̀lɛ] or [wɔ̀ɛ] respectively, and speakers of Vai accept /wú'ì*/, /wóé/, and /wɔ̀'ɛ/ as valid interpretations for these words.[1]

In addition to the twelve "inherited" word-initial consonants of Vai, there are no less than fourteen word-initial consonants which may be called "innovated" consonants. Words beginning with these consonants do not have cognates in other Northern Mande languages. In the following chart of these consonants, the numeral after each symbol again indicates the number of words, out of a vocabulary of about 1500 items, beginning with that consonant. The numerals include a somewhat smaller proportion of duplication than for the inherited consonants, since there are proportionately fewer derived forms.

p: 42		c: 4		
bh: 18	dh: 25		g: 29	gb: 36
			h: 8	
v: 12	z: 19			
		y: 5		
			ŋ: 1	
	nd: 1	nj: 1	ŋg: 2	

Of these consonants, /bh/ and /dh/ are non-implosive voiced stops, [b] and [d]. The use of digraphs with h is not intended to imply aspiration or any other special articulation; rather, for use in a practical orthography, the digraphs were chosen to represent these relatively rare consonants as opposed to the far more common /b/, which is always an implosive stop, and /l/, which frequently is.

A comparison of the statistical frequency of initial consonants in the two categories is instructive in itself. It is true that some of the innovated stops appear in more words than some of the inherited nasals (e.g. /gb/ in 36 forms as opposed to /ny/ in only 25); such a comparison, however, is irrelevant. What is significant is that any innovated consonant is far less common than any inherited consonant of the same articulatory type or position. There are 42 cases of /p/, but from 101 to 268 of other voiceless stops, and 143 of /b/. There are only 25 cases of inherited /ny/, but that figure far exceeds the one attested case of initial /ŋ/. These facts alone might well lead one to suspect that the second group of consonants, though they constitute a majority of the word-initial consonants in the language, are of relatively recent origin in Vai, and have very likely come into the language in adopted vocabulary.

This suspicion is readily confirmed by adducing evidence from other Northern Mande languages. The appendix to this paper lists ninety-one certain or highly probable cognates between Vai and Mandekan. The Mandekan forms are from Bambara; I am indebted to Professor Karen Courtenay for their transcription. The Vai initial consonants in all of these forms are in the "inherited" category.

A few notes on the phonetic correspondences may be appropriate. Vai /t/ generally corresponds to Bambara /t/, though one monosyllabic form, and an alternant of another, shows /c/ in Bambara before a front vowel. The Bambara form /ntòrí/ 'toad' is one of several Bambara words with initial prenasalized consonants, generally indicating animates; Professor Courtenay suggests that this may be a survival, previously unrecognized in any Mande language, of a noun-class marker, which may be compared to Bantu Class 9.

PNM *k and *g merged before the separation of Vai-Kono and Mandekan. Recognizable derivations from *g are indicated in cases for which SWM cognates are known, and which reconstruct with *g

for Proto-SWM. Subsequent to this merger into /k/, /k/ generally became /s/ in Mandekan, but not in Vai, before the vowels /i/ and /e/. A few apparent exceptions to this pattern are included among the cognates listed, and no explanation is offered here; evidence from other languages might clarify these cases.

The correspondence of Vai /kp/ to Bambara /g/ will not seem as strange when it is noted that Bambara /g/ in these and countless other forms corresponds to /gb/ in Maninka, another Mandekan dialect.

The correspondence of Vai /s/ to Bambara /d/ in several forms is stranger; there are other correspondences of /s/ to /s/ and /l/ to /d/, which are more to be expected. The /s/ to /d/ correspondence is, however, adequately attested, and is confirmed by evidence from Southwestern Mande languages; no reconstructed consonant is suggested here, but the cognation of the forms listed is virtually certain.

Of just over 200 Vai forms recorded with the initial consonants that have been called innovated, on the other hand, the Bambara equivalents show at least partial similarity in only three cases. For two of these, however, Vai and Gola have identical forms; for the third, Vai and Mende have identical forms. These appear, therefore, to be far more probably adoptions from Gola and Mende than inherited cognates with Mandekan.

The history of the Vai forms in question, and the consonants with which they begin, will become far clearer when Vai is compared to Kono, to which it is far more closely related than to Mandekan. My Kono data are unfortunately not extensive, based on a few hours of elicitation in Freetown, Sierra Leone in August, 1974; but even the restricted data suggest a predominant pattern. Kono equivalents for about 70 Vai forms with inherited consonants were elicited. They are closely similar to, and almost certainly cognate with, the Vai forms in a vast majority of cases. (The Swadesh list appears to show about 79 percent putative cognation between Vai and Kono.) Kono equivalents for 28 Vai forms with innovated consonants were elicited. Only two show any similarity. For one of these, the Kono informant said that he recognized the word as being of Mende origin; the other is identical with a Mende word. Forms such as these may have been adopted from Mende before Vai and Kono diverged from each other, or they may have been adopted independently more recently; Mende is situated between Vai and Kono today, and is contiguous with both. In any case, it would appear from the available evidence that the vast majority of the Vai forms with innovated initial consonants have come into Vai within the past four or five centuries, after the Vai migration to the present coastal area.

The specific origin of much of the adopted vocabulary of Vai is not easy to determine. Of the 200-plus Vai forms with innovated initial consonants, plus some clearly innovated words using inherited consonants, about 15 are from English, and about 10 from Arabic (probably via Mandekan). Another 10 or so are words of unknown origin that are found in many Liberian languages, and even elsewhere

in West Africa. Of the rest, Gola appears to be the major source of innovated Vai vocabulary, with Mende a poor second. In 63 cases out of some 1500 items in my Vai vocabulary, both Gola and Mende show similar forms; one or the other language is probably the source, but it is rarely easy, on the basis of the evidence available at present, to decide where a word began and in which direction it moved.

As might be expected, most of the clearly adopted lexical items in Vai are nouns, generally referring to items that appear to be easily susceptible to cultural transmission; a number of them have to do specifically with seacoast culture. It may be a bit surprising, however, that out of the 200-plus Vai forms with innovated initial consonants, as many as 19 are verbs, 11 refer to body parts, and 2 are kinship terms.

Vai thus appears to have acquired an unusual amount of new vocabulary in its relatively recent history; if over 200 out of 1500 items are clearly recent inoovations as attested by their initial consonants, probably another 200 items beginning with the inherited consonants are also recent innovations, for a total of close to thirty percent of the recorded vocabulary. In the process, the consonant phonology of Vai has undergone a remarkable expansion, though hardly a substantive restructuring. Vai is still unmistakably a Northern Mande language, and certainly can in no way be called a "mixed" language, but it has undergone unusual developments, which suggest an unusual history.

Many Vai people believe, and it may indeed be a rather strong oral tradition, that those who left the interior of modern Sierra Leone four to five centuries ago to settle along the coast were predominantly men without wives from their homeland. It is thought that they took wives from the Gola tribe, and to a lesser extent from the Mende tribe; village raids and small-scale warfare were probably involved. The linguistic evidence appears to strengthen this hypothesis. If it is true, it is likely that, for at least a couple of generations, there was extensive bilingualism; children grew to adulthood with equally native competence in two languages and thus in two phonologic systems. As a result, Gola or Mende words could be incorporated into Vai usage without modifying their pronunciation to fit the more restricted inherited Vai consonant system, and the number of word-initial Vai consonants thus more than doubled.

It is not surprising that the phonology of Vai was left relatively undisturbed in regard to intervocalic consonants, vowels, and tones. In all of these respects, Gola and Mende were much more similar to Vai to begin with. Vai does seem to have a somewhat more varied inventory of intervocalic consonants than was characteristic of PNM, but the situation is by no means as conspicuous as it is for word-initial consonants. Peculiar restrictions on nasalized vowels in Vai may also reflect outside influence, but the number of forms involved is not great. A great deal of study remains to be done on restricted phonological patterns and on individual words, but all of the evidence seems to point toward a story of invasion, intermarriage, and close interaction over the past five cenutires or so.

A completely independent phenomenon in the consonant phonology of Vai has completely independent historical implications, but implications which are most interesting from the viewpoint of historical linguistics. This is the status of the elusive intervocalic /l/ in Vai. Many an expatriate attempting to learn Vai, or to settle on an alphabetic orthography for it, has been thoroughly frustrated by the vast number of forms he hears sometimes with and sometimes without an intervocalic /l/. With no reflection on either the integrity or the intelligence of either party, one could well imagine a conversation like the following between an expatriate learning Vai and his native-speaking helper:

Learner: What do you call a 'road'?
Helper: [kíà].
Learner: [kíà]; is that right?
Helper: That's right: [kílà].
Learner: Oh, I guess I was wrong; it's [kílà].
Helper: That's right: [kíà].

An extensive and difficult statistical survey of individual usage might be helpful here. It is known that there is no problem of dialect difference. There seems to be some correlation with age, but it is by no means perfect. In general, intervocalic /l/'s are probably more frequent in the speech of older people, and they may be more common in relatively formal speech than in casual conversation. It is possible that /l/ is likely to be heard more often in some words than in others, though Fr. Kandakai could not identify one word, out of several hundred we checked, in which he felt intervocalic /l/ to be obligatory; actually, at one point he thought there were a few, but when I used the same words a few days later without /l/, he registered no surprise, and accepted my pronunciation even when I pointed out what I had done. Apparently there is no phonologic environment in which a possible intervocalic /l/ may not be omitted; such a possibility has been suggested, however,[2] and remains to be checked. Among speakers of Vai who are literate in English, some (perhaps primarily younger people) object to seeing /l/ written in all forms in which it is sometimes heard; others (perhaps primarily older people) object to having it omitted. For purposes of a practical orthography, I have proposed using an apostrophe in all of the forms in question; for those who want the sound symbolized, there is a symbol there, but it is less conspicuous than a full letter, and can be ignored if one chooses.[3]

It is reasonably clear that we are faced here with a phonetic change in process. There once was an intervocalic /l/ in a very large number of Vai words--as many as forty percent of the lexical items recorded. It is being lost by a process of regular phonetic change, apparently with no environmental conditioning. Perhaps in another generation or so it will not be heard at all, though it is quite possible that a new intervocalic /l/ will crop up in words newly adopted from other languages, especially English.

There is some remarkably clear information about the history of this change. In 1850-51, S. W. Koelle consistently recorded interfocalic r in the forms in question.[4] Although he discusses "elision" quite fully, there is no mention of the elision of this intervocalic consonant under any circumstances. Fr. Kandakai says that he remembers, when he was a young boy (in the 1920's), very old people using an [r] (an alveolar tap) in such words. Ordinarily, I would be somewhat skeptical of such a comment, since such phonetic change are not commonly noticed; but Fr. Kandakai added that such old people reminded him of Mandingos (i.e., speakers of Mandekan, especially Maninka) speaking Vai, and [r] would be typical of their pronunciation. A century and a quarter ago, therefore, Vai appears to have had an intervocalic [r] which was never elided. By about fifty years ago, a change from [r] to [l] was virtually complete, with [r] being retained only by old people, some of whom may actually have been born by the time Koelle did his work. The loss of the intervocalic resonant could hardly have begun before the change to [l] was pretty well established, presumably within the present century. At present, the intervocalic /l/ can hardly be given much hope for long survival, though it is not dying without a struggle. The struggle may have something to do with the influence of the Vai syllabic writing system.

3. Conclusion

Modern linguists have frequently and properly maintained that the existence of a written language has relatively little effect on the processes of language change. To be sure, we are all aware that written English, for example, has indeed left its mark on the spoken language in some dialects; yet thou, thee, thy, and ye could disappear from the spoken language in spite of their appearance in writing in the world's all-time best seller. There is a relatively small number of speakers of Vai who are literate in the syllabary; it might seem preposterous to suggest that it has slowed down a phonetic change. It should be remembered, however, that, whether they use it or not, the Vai people are inordinately--and justifiably--proud of their unique indigenous orthography. Further, the Vai culture is one in which there is a profound respect for the elders, and it is especially the respected elder men who take pride in the syllabary and view it as a tradition-preserving treasure. Now, the syllabary uses symbols for the second syllable of forms such as /kí›à/ which differ from symbols for vowels alone, in which /l/ is never lost. There is therefore a certain prestige attached to the pronunciation [kílà], or at least to knowing that pronunciation and perhaps considering it "correct". The final demise of intervocalic /l/ is probably inevitable, but some pressure remains to retain it, perhaps fifty or more years after it began to disappear.

In Kono, cognates for a good many of the Vai forms in question--perhaps fifty or more--were recorded. A very few Kono forms were recorded with intervocalic /l/, but in general Kono seems to have undergone or to be undergoing the same loss; in the vast majority of the forms, no intervocalic consonant was heard. If we were to

judge only from contemporary Vai with no intervocalic /l/'s (which might well be recorded within a few decades), and contemporary Kono, we might well conclude that the loss of intervocalic /l/ was a shared development, dating back to the time when they were a single language in an unbroken community, perhaps five hundred years ago. The evidence cited above, however, establishes that the loss of intervocalic /l/ in Vai is very recent, probably within the present century. Its loss in Kono must therefore be a completely independent development. The significance of shared developments in historical linguistics can hardly be overestimated; the case of Vai, however, underscores the importance of determining that parallel developments in related languages are indeed shared rather than independent of each other.

Footnotes

*This paper is based on work done in Monrovia, Liberia in 1974, for approximately the equivalent of three months full time, primarily with the Rev. Fr. C. K. Kandakai as my informant.

[1]An asterisk after a form indicates that the form is a verb stem, which cannot be cited in isolation with the tones given. In isolation or with an object in the imperative (the usual citation form), all verbs have low tone throughout. The tones as given, however, are contrastive in some other verbal constructions.

[2]Mrs. Gail Stewart, personal communication.

[3]Credit for this suggestion is due to Mrs. Beatrice F. Welmers, personal communication.

[4]An earlier [r] seems most reasonable in the light of the word /bhɛ̀ì/ 'mattress', undoubtedly adopted from English bed, presumably in the nineteenth century, and probably pronounced [bɛ̀rì] at first.

Reference

Koelle, S. W. 1854. *Outlines of a Grammar of the Vei Language.* London: Church Missionary House. (republished 1968, Gregg International Publishers Ltd.).

Appendix: Vai - Mandekan

The following are some clear or highly probable cognates between Vai and Mandekan. The Mandekan forms are from Bambara, as transcribed by Professor Karen Courtenay.

Vai	Bambara	
tá	tá(-sùmà)	fire
táá	táá, tágá	go
tâŋ	tán	ten
tɛ̌	tǐ, cǐ	break apart, split
té'é	tìlé	sun, day
tɛ́	cɛ́	middle
tìɛ́	tìgɛ́	cut
tó	tó	story
tòtí	ntòrí	toad
kàí	cɛ̌, kɛ̌	man
ká'á	kálá	bow
kànyà	kɛ̀nyɛ́	wax
káŋ	kán	neck
kɛ́	kɛ́	do
kɛ̀'ɛ́	kɛ̀lɛ́	war
kó	kó	thing (non-material)
kɔ́'ɔ́	kɔ̀rɔ́	old
kɔ̀wɔ́, kɔ̀ɔ́	kɔ̀gɔ́	salt
kú,ú	kóló	bone
ká'ó	káló	moon, month (SWM *g...)
ké'í	kílí	egg (SWM *g...)
kíŋ	kín	bite (SWM *g...)
kòndé	kɔ̀nɔ́	bird (SWM *g...)
kǔŋ	kun	head (SWM *g...)
kɛ̌ŋ	sɛ̌n	leg, foot
kí'à	sírá	road, path
kímá	súmán	cold
kàmá	sàmá (!)	elephant
kì'í	sìrí	tie (SWM *g...)
kpáí	gɛ́n	chase away
kpàsí	gòsí	beat, flog
kpɛ̀'ɛ́	gɛ̀lɛ́n	be difficult, hard
kpɛ́sɛ̀	gésé	"toothbrush"
kpò'ó	gòló, wòló	skin
bɛ̌	bɛ̌	goat
bâŋ	bán	finish
bɛ̌ŋ	bɛ̌n	meet
bò'í	bòlí	run
bó'ó	bóló	hand, arm

Vai	Bambara	
jǎŋ	jǎn	be tall, long
jèndà	jɛ̀nɛ́	spindle
jí	jí	water
jɔ́	jɔ́n	who?
jù'ú	jùrú	rope
jɔ̌ŋ	jɔ̌n	slave
jɛ́'ɛ́	yɛ́lɛ́	laugh
jì'á	yìrá	show
fǎ	fǎ	father
fàá	fàgá	kill (SWM *p...)
fè'á	fìlá	two (SWM *f...)
fɛ́ŋ	fɛ́n	thing (material)
fì'í	fìlí	throw (SWM *p...)
sá	dá	lie down
sóó'ú	dúúrú	five
sɔ́	dɔ̌, jɔ̌	stand
sɔ́	dɔ́n	know
sɔ́ɔ̀	dɔ́gɔ́	firewood
sàkpá	sàbá	three
sǎŋ	sǎn	year
sǎŋ	sǎn	buy
sɛ̌ŋ	sɛ̌n	dig
sɛ̀nɛ́	sɛ̀nɛ́	farm
sìí	sìgí	sit down
sǒ	sǒ	horse
sǔ	sǔ	corpse
wó'ó	wóló	give birth
wù'ú	wùlú	dog
lá	dá	mouth
làá	dàgá	clay pot
lɛ́ŋ	dɛ́n	child
lǒŋ	dǒn	enter
lɔ̌ŋ	dɔ̌n	V. song, B. dance
lɔ̌ŋ	dún, dúmú	eat
lɔ́ɔ́	dɔ́gɔ́	market
má	má	(negative)
mà'ó	màló	be ashamed
mànjá	màsá	chief

Vai	Bambara	
mǐ	mǐn	drink
míínyá	míníɲán	python
mɔ̌	mɔ̀gɔ́	person
mùsú	mùsɔ́	woman
ná	nǎ	come
náánì	náání	four
nɛ̀ɛ́	nɛ̌n	tongue
nɔ́ɔ́	nɔ́gɔ́	be dirty
nìí	mìsí (!)	cow (Manya: nísǐ)
nyí	nyí	be good
nyɔ́ɔ̀	nyɔ́gɔ́n	each other
nyɔ̀ɔ̀	nyɔ̀gɔ́n	similarity
nyíŋ	nyín	tooth
nyìná	nyìná	forget